



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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Ref: 8EPR-N

Mr. James Christian
FHWA Division Administrator
2520 West 4700 South, Suite 9A
Salt Lake City, UT 84118-1880

Mr. David Nazare
UDOT Region 3 Director
658 North 1500 West
Orem, UT 84057

Mr. David Graves
Director of Public Works
City of Provo
1377 South 350 East
Provo, UT 84506

Re: Draft Environmental Impact Statement for
Provo Westside Connector, Utah County
CEQ # 20100214

Dear Messrs. Christian, Nazare and Graves:

The U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Provo Westside Connector Project, prepared by Federal Highways Administration Utah Division (FHWA) and the Utah Department of Transportation (UDOT). EPA's review and comments are provided in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609.

The proposed project connects Provo Airport on Utah Lake with I-15/University Avenue /1860 at the southeastern end of Utah Lake. The stated purpose of the project is to provide a connection to the freeway transportation network to support planned residential development and land use changes in southwest Provo and to provide a more direct roadway link between the residential areas west of I-15 and the commercial center of Provo east. The DEIS analyzes 2 build alternatives (Alternatives 15 and 16) and a no action alternative. Both project build alternatives are approximately 4 miles.

EPA has actively participated for the past several years as a Cooperating Agency for this project. Throughout EPA's review of this project, we have consistently pointed out the potentially significant adverse environmental impacts of this project. EPA has also emphasized the critical need for the DEIS to adequately assess an appropriate range of reasonable and practicable alternatives that would meet the overall project purpose of providing an east-west transportation corridor and avoid impacts to aquatic resources consistent with the provisions of NEPA and the Clean Water Act (CWA) Section 404(b)(1) Guidelines (Guidelines) (40 C.F.R. Part 230). These specific issues were highlighted in EPA's preliminary review draft comment letter dated June 1, 2009, our July 20, 2009 letter regarding the proposed revision of screening criteria, and our May 7, 2010 letter regarding the Alternatives Screening Report. We remain concerned that the DEIS does not effectively address these key issues. There are several areas of inquiry that need significant expansion, including the analysis of the purpose and need for the project, impacts to aquatic resources, floodplains, water quality, air quality and endangered species. Our primary issues are summarized below.

Project Purpose and Need/Alternatives

We are concerned that the DEIS uses a narrow purpose and need statement, which leads to consideration of a narrow range of alternatives, and precludes the consideration of potentially less environmentally damaging practicable alternatives. Specifically, the narrow interpretation of the Location of Termini specification made in the second alternatives screening has resulted in the elimination of all of the previously-identified less environmentally damaging alternatives and no new alignments attaching to that University Ave./1860 termini that avoid aquatic resources have been added. While we recognize that an objective of the applicant's proposal is to construct a new alignment attaching to termini at the Provo Airport and the I-15/University Ave./1860 interchange and support planned residential development and land use changes in southwest Provo, we believe the purpose and need to which FHWA and UDOT are responding should be broader. Accordingly, EPA recommends that FHWA and UDOT frame the purpose and need statement more broadly to facilitate a full examination of other reasonable alternatives.

In addition, the DEIS does not define system linkage screening criteria or provide a rationale for why certain alternatives did not meet these criteria. For example, the DEIS describes one of the primary project needs to be "Location of Termini: Does the alternative serve southwest Provo and include a connection to the Provo Airport and a connection (directly or via existing routes) to the I-15/University Avenue/1860 South Interchange?". The DEIS then presents 22 suggested alternatives, and screens out all but 2 build alternatives from detailed study. It is unclear how alternatives to the north do not meet the linkage criteria when a path between the airport and the interchange clearly exists. For example, Alternatives 11, 12 or 18 would improve the road from Provo Airport to University Avenue, which then connects to I-15 at the University Avenue/1860 South Interchange. Also, the document does not provide sufficient information to justify why Alternatives 7, 8 and 9 were similarly screened out. In addition, it is unclear from the DEIS why there was no analysis of an alternative immediately to the north of the two build alternatives that would avoid floodplain impacts and most of the wetlands impacts.

Based on our involvement with this project, it appears that several of the alternatives that were eliminated from detailed consideration may be reasonable and practicable alternatives that merit a full exploration and evaluation in a revised or supplemental DEIS. In our letters dated July 20, 2009 and May 7, 2010, we raised specific concerns and recommendations in this regard. Additionally, we raised these issues at more recent meetings with FHWA and UDOT on November 19, 2009 and March 30, 2010. Potential alternatives include many to the north of the current alternatives which would altogether avoid, or nearly avoid, any impacts to aquatic resources (e.g., Alternatives 7, 8, 9, 11, 12 and 18). Neither the DEIS nor the February, 2010 Alternatives Screening Document provide an adequate explanation as to why all of these alternatives were eliminated from detailed consideration. Additionally, we recommend analyzing an alternative which combines smart growth principles with mass transit and Transportation Demand Management (TDM) options to see if the purpose and need for this project can be met without highway construction.

The CWA Section 404(b)(1) Guidelines state that only the Least Environmentally Damaging Practicable Alternative (LEDPA) may be permitted by the Corps (40 C.F.R. 230.10(a)). Based on the information contained in the DEIS, it appears that there may be several practicable alternatives with fewer impacts to aquatic resources than either of the build alternatives evaluated in the DEIS, and therefore sufficient information is lacking as to whether either Alternative 1860 South Alternative or University Avenue Alternative A or B would be in compliance with the Guidelines. Because the alternatives analysis does not rigorously explore and objectively evaluate all reasonable and practicable alternatives that would avoid the environmental resource impacts discussed in this review, we must conclude that it is insufficient. This may result in additional required environmental and alternatives analysis under the CWA 404 review, and potentially result in a determination other than the applicant's preferred alternative.

Impacts to Aquatic Resources

The DEIS' impact assessment leads EPA to conclude that practicable alternatives to the two build alternatives that would have less adverse effects on the aquatic ecosystem likely exist, and there is not sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with the requirements of the Clean Water Act (CWA) Section 404(b)(1) Guidelines. These Guidelines, which are used to evaluate CWA Section 404 permit applications, allow for issuance of a CWA Section 404 permit only when there are no other practicable alternatives to the proposed discharge that would have less adverse effects on the aquatic ecosystem (40 C.F.R. § 230.10). As discussed below, EPA has many significant concerns regarding the alternatives analysis as well as the impacts of the project to the aquatic ecosystem.

Alternative 15's (1860 South Alternative) impacts to aquatic resources in the project area include the loss of approximately 9.3 acres of jurisdictional wetlands. Alternative 16's (University Avenue A and B) impacts to aquatic resources in the project area include the loss of approximately 5.3 acres of jurisdictional wetlands. While EPA appreciates that several previously-identified alternatives with greater wetlands impacts were not brought forward for

detailed consideration, we note that there are numerous alternatives which would likely have considerably fewer impacts to aquatic resources that were not adequately considered in the DEIS.

Because the DEIS does not sufficiently evaluate the wetlands in the project area by both wetland type and functional quality, it is impossible to fully evaluate the significance of the wetlands impacts associated with this project. The DEIS states that the criteria for determining wetland impacts included, in part, the reduction or loss of wetland values that would result from temporary and permanent fill, but there is no discussion of the values of these wetlands, how their values were assessed, or what reduction in values occurred. EPA recommends that a full wetlands functional assessment be performed to characterize the current wetland functions in the project area and evaluate the magnitude of impacts for each alternative. EPA recommends the use of the Utah Department of Transportation Wetland Functional Assessment Method to evaluate the functions and quality of wetlands at the project site. Additionally, EPA requests that future NEPA documentation provide an assessment of wetland impacts by both functional quality and wetland type.

The DEIS states that there are artesian springs in the project area. Springs represent a difficult to replace resource and they support unique ecological communities. EPA requests that information regarding the locations of these springs in relation to the alternatives and an assessment of the potential direct, indirect and cumulative effects on these springs and the associated ecological communities from the project be included in the EIS.

The wetlands that will be impacted are hydrologically stable, as there are no significant human disturbances such as ditches or trampling. These wetlands, adjacent to Utah Lake, are part of a larger wetland complex supporting various species of wildlife, Neotropical migratory birds and sensitive and endangered species (June sucker and Ute Ladies' tresses). Utah Lake is the largest freshwater resource in Utah and the quality and abundance of its adjacent wetlands are critical to its functional and habitat values. The wetland complex in north Provo Bay that will be directly affected through fill and segmentation, represents a sizable and largely undisturbed tract of wetlands adjacent to Utah Lake, and the effect of this roadway may have significant adverse effects on the functioning of these wetlands in the future.

Floodplain Impacts

Both of the build alternatives are located in the 100-year floodplain. Sixty to seventy acres of floodplain will be directly impacted by these alternatives. Floodplains provide a variety of natural resource values and services, including flood buffers, flood storage and water quality maintenance, hydrologic connectivity to the groundwater table, ground water recharge, as well as important habitat for some species. Executive Order 11888 "Floodplain Management," dated May 24, 1977, requires a finding must be made that there is no practicable alternative to the floodplain encroachment. Further, E.O. 11888 requires federal agencies to evaluate the potential effects of actions they may take in a floodplain, and to avoid long and short term adverse impacts wherever practicable. An agency's evaluation of impacts should include a consideration of

alternatives to the proposed project. If the only practicable alternative requires location in a floodplain, the agency must design or modify its action to minimize potential harm.

The floodplains alternatives analysis in the DEIS is insufficient to meet the requirements of E.O. 11988. The DEIS provides inadequate description and analysis of the impacts the two build alternatives would have on the floodplain. The impacts discussion is generic in nature and omits any discussion of the potential impacts the two build alternatives might have on the hydrology or flood patterns of the floodplain or on the water quality of the lake. In addition, the DEIS provides only minimal discussion of the project modifications and mitigation necessary to minimize potential harm to the floodplain beyond mention that consultation with the Federal Emergency Management Agency will occur. The DEIS also concludes, without any subsequent discussion or supporting information, that a final culvert design would “not impair the current functioning of the floodplain.” Finally, the DEIS provides no account of likely long-term effects of the two build alternatives with respect to the floodplain, particularly with regard to induced demand created by the new road and the likely growth and development impacts that will result.

EPA recommends that the revised DEIS address these deficiencies and that FHWA and UDOT reexamine the DEIS’ conclusions regarding floodplain impacts. The Agencies should either clearly justify why it is not practicable to locate a build alternative outside the boundaries of the floodplain or reassess certain alternatives located outside of the floodplain.

Water Quality Impacts

The DEIS contains insufficient information to assure that surface water uses as defined in the State’s water quality standards will be protected. The DEIS states that the proposed build alternatives have the potential to affect fish and their habitat by impacting water quality.

Utah Lake is listed on the State’s Clean Water Act § 303(d) for total dissolved solids (TDS) and total phosphorus. All build alternatives result in additional contributions of TDS and total phosphorus to the lake. Because the lake is currently impaired, even introduction of relatively low levels of these pollutants will contribute to impairment. The proposed action will result in unmitigated contributions to water quality standard exceedances for TDS and phosphorus in Utah Lake as the proposed mitigation measures are not effective for dissolved contaminants.

For Big Dry Creek and Mill Race Creek, the DEIS predicts maximum concentrations of copper, lead, zinc, total phosphorus, and TDS resulting from both build alternatives. The analysis predicts acute water quality standards exceedances for both copper and lead in Big Dry Creek that will not be mitigated with the proposed Best Management Practices.

Increased stormwater volume and velocities are anticipated from this project and may contribute to additional transport of pollutants to Utah Lake and Big Dry Creek. EPA requests that the document more clearly describe the stormwater management activities proposed for the

alignments. They should include a description of the type of design and the rationale for each segment of the proposed highway in order to mitigate runoff.

Air Quality

This project is located in Utah County which is designated as nonattainment for both the 2006 24-hour PM_{2.5} National Ambient Air Quality Standard (NAAQS) and the 24-hour PM₁₀ NAAQS. While the DEIS states that the build alternatives will not result in significant levels of diesel traffic using the project corridor, there is no supporting information for this assertion. It appears that diesel truck traffic could increase significantly as a result of commercial growth anticipated in the area and expanded airport usage. Because the project is located in both a PM_{2.5} and PM₁₀ nonattainment area, EPA recommends that supporting information should be included in the DEIS in order to determine the need for a project-level qualitative hot-spot analysis for PM_{2.5} and PM₁₀.

The document contains insufficient air quality trends information. We recommend that this section be revised and expanded to discuss all of the NAAQS as presented in 40 CFR 50.4 through 50.15 with relevance to the study area (also see <http://www.epa.gov/air/criteria.html>). Information similar to that in the Geneva Road Final EIS, with a discussion of the NAAQS and a table with ambient air quality data (see section 3.8.2 and <http://www.udot.utah.gov/geneva/feis.php>) should be provided.

EPA notes that FHWA updated its interim guidance on MSATs on October 13, 2009 (Appendix D Undated Uncertainty Language). While there are positive elements of this interim guidance, EPA, nationally, continues to disagree with major pieces of the approach taken in this interim guidance, as well as much of the specific language used in the guidance. We note that the MSAT sections and Appendix D in this DEIS contain language similar to that from FHWA's Interim Guidance on MSATs; also language with which EPA has consistently disagreed. In addition, EPA notes that the DEIS focuses its discussion on the MOBILE6.2 model and its limitations, but does not present any discussion on EPA's March 2, 2010 (Federal Register, 75 FR 9411) official release of EPA's current and significantly improved model **MO** tor **V**ehicle **E**missions **S**imulator (**MOVES**) which is MOBILE6.2's replacement; see <http://www.epa.gov/otaq/models/moves/index.htm> for further information.

For Global Climate Change, a table be should included that provides a relationship to the Vehicle Miles Traveled levels and associated CO₂ emissions with respect to Global emissions and project emissions. A suitable table was included with the Geneva Road Final EIS (see page 3-189, Table 3-40 of the Geneva Road Final EIS).

Endangered Species Impacts

Utah Lake and its tributaries are the only habitat for the June sucker, a Federally-listed endangered fish species. Provo Bay in Utah Lake is identified as an important post-spawn habitat for the June sucker. While the DEIS states that implementation of the proposed

mitigation measures will prevent water quality impacts to Provo Bay, there is no discussion of how this determination was made. According to the DEIS, FHWA and UDOT have not initiated consultation with the U.S. Fish and Wildlife Service (FWS) regarding the potential impacts on the June sucker, a Federally-listed endangered fish species and the Ute ladies'-tresses orchid, a Federally-listed endangered plant species. The direct impacts from water quality changes during construction or roadway runoff, as well as indirect and cumulative effects from wetland hydrologic modification in the floodplain could affect the habitat, vitality and resilience of these species. Specific mitigations for stormwater runoff should be coordinated with the FWS and EPA for inclusion in the Final EIS.

Environmental Justice

The DEIS identifies one Block Group within the Project Area with a significantly high minority population. This Block Group is located within the residential area where noise and visual impacts will occur. Although there are no direct noise and visual impacts to the area under the 1860 South alternative, there are still cumulative impacts. Council on Environmental Quality guidance notes that cumulative impacts on environmental justice communities should be considered as part of the environmental justice analysis in the NEPA process. The DEIS does not include a cumulative analysis for environmental justice. EPA recommends that the cumulative visual and noise impacts on this population be considered in the environmental justice analysis.

Indirect Effects/Cumulative Impacts

The level of analysis of indirect effects and cumulative impacts is not commensurate with the project's impacts and resources affected. The indirect and cumulative effects analysis should discuss the impacts of future growth north of the new roadway and the consequences of this growth occurring at a quicker pace than the no action alternative. It is our understanding that under the Provo master plan, this build-out for commercial and residential expansion could be substantial. This discussion is critical because the build alternatives presented in the DEIS will likely have adverse effects on floodplains, wetlands and adjacent wildlife habitat, directly, indirectly and cumulative.

In addition, the indirect impact assessment for floodplains should address the requirements of Executive Order 11988. Using the procedures described in "Further Advice on E.O. 11988 Floodplain Management", Interagency Task Force on Floodplain Management, 1987, the indirect impact analysis should address induced development in the floodplain and in flood storage areas.

Both the wetland and floodplain indirect impacts assessment should include wetland functions, more information on hydrologic connectivity, flood retention and floodwater storage areas, water quality impacts to the lake, riparian habitat losses, loss of prime farmlands, and increased peak flows from suburbanization. The potential effects of secondary development (land conversions), including increases in the area of impervious surfaces, will have a marked effect on hydrology and its impact on linear water courses and their substrates. These impacts

can extend beyond both the highway corridor and the project study area. Failure to consider this will result in underestimating the potential effects of the proposed project on both terrestrial and aquatic habitat.

Cumulative impacts to wetlands resulting from reasonably foreseeable development and associated access points along the proposed roadway alternatives should be addressed in this document. An appropriate scope of analysis in this case and under the Section 404 permit should include all the aquatic resource impacts under federal control and responsibility which are significant when viewed cumulatively. Because future access points can result in additional wetland impacts, we recommend that an analysis be completed that fully discloses potential impacts to wetlands (with appropriate mitigation). Appropriate mitigation may include requiring buffer easements along the proposed roadway to limit secondary growth impacts. This analysis can include incorporating wetland concerns into an Access Management Plan, so that future access permit decisions do not conflict with the requirements of the Clean Water Act. We believe that limiting access, in general, is a positive design concept to consider.

EPA recommends that analysis of indirect and cumulative wildlife impacts be coordinated with the USFWS. USFWS has previously commented on the need for assessment of impacts of wildlife habitat disturbances and connectivity, as well as impacts on migratory bird habitat associated with this project.

There are currently multiple transportation improvement projects in the area. One project currently under construction (Interstate 15 Reconstruction project) and two in the planning stages (Geneva Road Improvement project and Lakeshore Drive). These projects will affect the transportation patterns and level of service within the study area. The relationship of the proposed project to these other planned and in progress transportation projects will need to be discussed in any future documentation, including the cumulative effects of residential/commercial development, transportation patterns and level of service, and associated environmental impacts.

The DEIS indicates that support of planned improvements at the Provo Airport and related commercial and industrial development in the vicinity of the airport is a primary need for the proposed project. Since this airport expansion is an integral, connected action to the proposed action, under NEPA, the potential environmental impacts associated with the airport expansion and related development should be analyzed.

Mitigation Measures

The proposed mitigation measures do not adequately address the environmental impacts of this project. We believe there are additional mitigation measures that have been implemented for similar transportation projects that should be used to offset the adverse impacts to wetlands associated with the build alternatives after compliance with the CWA Section 404(b)(1) Guidelines which require avoidance and minimization of impacts prior to the determination of required mitigation. For example, these mitigation alternatives may include purchasing credits in a mitigation bank, or preservation, restoration or enhancement of wetlands in proximity to the proposed roadway that may be affected by future development or help to maintain habitat

connectivity in northern Provo Bay. EPA requests that FHWA and UDOT consider the full cost of mitigating for the wetland impacts associated with the build alternatives and incorporate that into the total cost for that alternative. Costs associated with wetland mitigation include acquisition of wetland mitigation property site, restoration and monitoring activities, and financial assurances for long-term maintenance and site protection in perpetuity. These specifics are outlined in greater detail in the 2008 Compensatory Mitigation for the Losses of Aquatic Resources Final Rule (40 C.F.R. Part 230; 33 C.F.R. Parts 325 and 332).

It is unclear whether the wetlands impact assessment considered the full Right of Way (ROW) which includes the utility corridor discussed on 3-11 of the DEIS and the bicycle and pedestrian lanes discussed on 3-32. This should be clarified and, if necessary, corrected, to provide the public with information on the full extent of the project ROW wetland impacts.

Regarding mitigation of water quality impacts, EPA requests that the document more clearly describe the stormwater management activities proposed for the alignments. Technical rationale should include advantages, disadvantages, possible failure points (such as freezing temperatures or weather events), explanation of runoff pathways from the road and possible consequences, how different designs handle common road runoff and potential hazardous spills, maintenance issues, information supporting the use of any new technologies, and other information relevant to the selection and operation of stormwater management design. The document should indicate when a commitment will be made to stormwater management design.

EPA also recommends that the EIS address any commitments that the community plans to implement, including wetland replacement or compensation, land use or zoning plans that avoid wetland and floodplains, and conservation easements etc., to protect and enhance resources of concern in their local community. These commitments should also state when implementation of these measures might take place and if financial assurances for their implementation are in place.

In order to mitigate air quality impacts, EPA suggests that the following on-road and non-road mitigation measures (addressing particulates and mobile source air toxics) caused by emissions from construction equipment be considered for this project:

- Prohibit unnecessary idling of construction equipment;
- Require use of low-sulfur fuel;
- Locate diesel engines as far away as possible from residential areas;
- Locate staging areas as far away as possible from residential uses; and
- Require heavy construction equipment to use the cleanest available engines or be retrofitted with diesel particulate control technology.
- Use alternatives to diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG, fuel cells, and electric engines;
- For winter time construction, install engine pre-heater devices to eliminate unnecessary idling;
- Prohibit tampering with equipment to increase horsepower or to defeat emission control devices effectiveness;

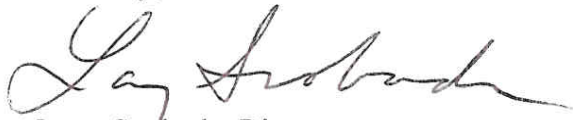
-Require construction vehicle engines to be properly tuned and maintained; and use construction vehicles and equipment with the minimum practical engine size for the intended job.

Conclusion

EPA believes that the additional information and improved analyses specified above are necessary to ensure the information in the EIS is adequate to fully inform decision-makers and the public about the potential environmental consequences of the project. Due to the two build alternatives' potential impacts on wetland aquatic resources, floodplains, water quality and endangered species, as well as the need for significant additional analysis in the EIS, EPA has rated both build alternatives as "Environmental Objections - Insufficient Information" (EO-2) in accordance with EPA's national rating system, a description of which is attached to this letter. The No Action alternative is rated as "Lack of Objection."

We appreciate the opportunity to review this DEIS and would welcome the opportunity to assist you in completing the NEPA process for this project. We will be contacting you soon to continue working with you to resolve our concerns. If you have any questions, please contact me at (303) 312-6004, or Robin Coursen of my staff at (303) 312-6695.

Sincerely,

A handwritten signature in dark ink, appearing to read "Larry Svoboda", written in a cursive style.

Larry Svoboda, Director
NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Enclosure

cc: Edward Woolford, FHWA
Carlos Bracerias, UDOT
Daniel Page, UDOT
Betsy Herrmann, FWS by email
Jason Gipson, Corps by email